

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 08/26/2016		2. CONTRACT NO. (If any) EP-C-16-008		6. SHIP TO: a. NAME OF CONSIGNEE NHEERL - MED	
3. ORDER NO. 0001		4. REQUISITION/REFERENCE NO. PR-ORD-16-02233			
5. ISSUING OFFICE (Address correspondence to) CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268				b. STREET ADDRESS US Environmental Protection Agency National Health and Environmental Effects Research Lab 6201 Congdon Blvd	
				c. CITY Duluth	e. ZIP CODE 55804
7. TO: William J Arnold				f. SHIP VIA	
a. NAME OF CONTRACTOR GREAT LAKES ENVIRONMENTAL CENTER, INC.				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 739 HASTINGS STREET				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY TRAVERSE CITY		e. STATE MI	f. ZIP CODE 496863458		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT Destination	
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> d. WOMEN-OWNED	<input type="checkbox"/> e. HUBZone	
<input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED	<input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM		<input type="checkbox"/> h. EDWOSB		
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 06/30/2017	
a. INSPECTION	b. ACCEPTANCE	16. DISCOUNT TERMS			

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 800884181 TOCOR: David Bolgrien Max Expire Date: 06/30/2020 Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$14,100.00 (b)(4)
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						
c. CITY Durham				d. STATE NC	e. ZIP CODE 27711		

22. UNITED STATES OF
AMERICA BY (Signature)

08/26/2016

Courtney Stallworth

ELECTRONIC
SIGNATURE

23. NAME (Typed)

Courtney Stallworth

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 08/26/2016	CONTRACT NO. EP-C-16-008	ORDER NO. 0001
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Admin Office: CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 Accounting Info: 16-17-B-05HEL-202BJ7XF5-2505-1605HHX513-001 BFY: 16 EFY: 17 Fund: B Budget Org: 05HEL Program (PRC): 202BJ7XF5 Budget (BOC): 2505 DCN - Line ID: 1605HHX513-001 Period of Performance: 08/26/2016 to 06/30/2017					
0001	Base Period: Performance in accordance with the attached PWS and proposal in response to solicitation PR-OW-16-00274				(b)(4)	
0002	Option Period 1: Performance in accordance with the attached PWS and proposal in response to solicitation PR-OW-16-00274 (Option Line Item) 04/30/2017 Period of Performance: 07/01/2017 to 06/30/2018				(b)(4)	
0003	Option Period 2: Performance in accordance with the attached PWS and proposal in response to solicitation PR-OW-16-00274 (Option Line Item) 04/30/2018 Period of Performance: 07/01/2018 to 06/30/2019				(b)(4)	
0004	Option Period 3: Performance in accordance with the attached PWS and proposal in response to solicitation PR-OW-16-00274 (Option Line Item) 04/30/2019 Period of Performance: 07/01/2019 to 06/30/2020				(b)(4)	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$14,100.00

Performance Work Statement (PWS)
NARS Contract
EP-C-16-008 Task Order #4

TITLE: National Coastal Condition Assessment: Great Lakes Connecting Channel
Research: Microcystins Immunoassays

A. EPA PERSONNEL

Task Order Contracting Officer Representative (TOCOR):

Name: David W. Bolgrien
Office: EPA/ORD/NHEERL/MED
Address: 6201 Congdon Blvd Duluth, MN 55804
Telephone: 218-529-5216
E-mail: Bolgrien.Dave@epa.gov

B. ESTIMATED PERIOD OF PERFORMANCE

Base: Date of task order award through June 30, 2017
Option 1: July 1, 2017 through June 30, 2018
Option 2: July 1, 2018 through June 30, 2019
Option 3: July 1, 2019 through June 30, 2020

C. TASK ORDER TYPE

Firm Fixed Price

I. BACKGROUND:

The U.S. Environmental Protection Agency (EPA) and other partners are conducting research on the environmental assessment of Great Lakes connecting channels as part of the National Coastal Condition Assessment (NCCA). The NCCA repeats statistically-based surveys of the condition of coastal marine systems and the Laurentian Great Lakes at 5-year intervals. The goal of our research is to integrate connecting channels (e.g., the St Marys River, Huron-Erie corridor, and the Niagara River) into the overall coastal assessment. The NCCA is designed to provide information on the extents of condition classes that support healthy biological conditions, and estimate how widespread major stressors are that impact coastal systems. Status and trends data provide insights into whether these systems are getting cleaner. Consistent sampling and analytical procedures ensure that EPA can compare the results across the country and over time. In August 2016, field crews from EPA's Office of Research and Development (ORD) and the Great Lakes National Program Office (GLNPO) will collect samples from the St Marys River, connecting Lake Superior and Lake Huron. In 2017, EPA plans to sample the Niagara River. Work in subsequent years will be detailed on amendments to this task order. Field protocols are detailed in the NCCA Field Operations Manual (FOM; US EPA 2015a). Laboratory analysis will follow the protocols in the NCCA Lab Operation Manual (LOM; US EPA 2015b) and NCCA Quality Assurance Project Plan (QAPP; US EPA 2015c). Approximately 60 samples will be delivered to the lab each year for the immunoassay of microcystins under this task order.

Before the laboratory submits the data to EPA, the analyst who generated the data and an experienced data reviewer must independently check and review the data, as follows:

- The analyst shall review the data to ensure that:
 - Sample preparation information is correct and complete
 - Analysis information is correct and complete
 - The appropriate method and standard operating procedures were followed
 - Analytical results are correct and complete
 - Quality control samples were within established control limits
 - Blanks were within the appropriate quality control (QC) limits
 - Documentation is complete
- The data reviewer shall review the data package to verify that:
 - Calibration data are scientifically sound and appropriate
 - QC samples were within established guidelines
 - Qualitative and quantitative results are correct
 - Data spreadsheet conforms to EPA data template requirements
 - Documentation is complete

Accompanying its data submission for each batch, the laboratory shall provide a short narrative that includes the following information:

- Project summary referencing the batch QC identification number, total number of samples in the batch and their sample numbers, and the analytical methodology used for analysis;
- Discussion of any protocol deviations that may have occurred during sample testing;
- Discussion of QC questions that were encountered and the corrective measures taken;
- Definitions of any laboratory QC codes used in the data; and
- QC samples exceeding established control limits or parameters required by laboratory internal analytical Standard Operating Procedures (SOPs).

As a potential quality control step of field operations, field crews may submit field blank or duplicate samples. The contractor shall analyze these samples using the same procedures as those for the regular field samples. Unlike internal or calibration standards, the analyses of these samples will apply to the total number of samples submitted under the task order.

II. PURPOSE

The purpose of this task order is to perform immunoassays of microcystins in water samples collected for NCCA Great Lakes connecting channel assessment research. The types of support required for this project include technical support, sample analyses, transmittal of the results in database format, and a revised database at the conclusion of quality control procedures.

III. GOVERNMENT FURNISHED INFORMATION

EPA will arrange for delivery of the samples to the laboratory.

The following documents are references for the task order:

- 2015 NCCA Laboratory Operations Manual (LOM; US EPA 2015b; <https://www.epa.gov/national-aquatic-resource-surveys/national-coastal-condition-assessment-2015-lab-operations-manual>).
- 2015 NCCA Field Operations Manual (FOM; US EPA 2015a; <https://www.epa.gov/national-aquatic-resource-surveys/national-coastal-condition-assessment-2015-field-operations-manual>)
- 2015 NCCA Quality Assurance Project Plan (QAPP; US EPA 2015c; <https://www.epa.gov/national-aquatic-resource-surveys/national-coastal-condition-assessment-2015-quality-assurance>)

As they become available, the EPA TOCOR will provide the contractor with revisions of these or other relevant documents or information deemed necessary for the contractor to provide the support for the Performance Work Statement.

IV. GENERAL REQUIREMENTS

In providing support under the tasks described in Section V, the contractor also shall adhere to the following general requirements:

1. Deliverables

The contractor shall name all electronic files using a logical abbreviation for the name of the document (e.g., TO 4 Data), the contractor name, and the date of edits to assist in version control (ex: TO 4 Data_ LABNAME_2017_12_02).

The contractor shall use EPA's templates for reporting the results of the laboratory procedures for the NCCA samples. For any other database or spreadsheet submitted to EPA, the contractor must provide metadata that, at a minimum, identify the fields recorded for each sample, define the codes used for the field, and include the version number and date.

The contractor shall ensure that documentation is created using Agency standard software formats (e.g., Microsoft Office) to facilitate EPA use and review.

2. Identification at Meetings/Teleconferences (see Contract clause B.2)

Contractor personnel shall always identify themselves as contractor employees by name and organization. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

V. SCOPE OF WORK

The contractor shall provide laboratory support for the immunoassays of microcystins as described in the following tasks.

Task 1. Task Order Management and Monthly progress reports

The contractor shall manage the Task Order (TO) and submit monthly progress and financial reports prepared and submitted in accordance with the contract clause, Contract Attachment 2, Reports of Work.

- a. *Teleconferences:* Prior to the shipment of samples from the field, the contractor shall participate in 1-2 teleconferences with EPA about laboratory procedures for receiving, storing, tracking, analyzing, and reporting microcystins results. Each teleconference may last approximately 1 hour to review laboratory SOPs (copies of which are provided to EPA prior to the teleconference), the QAPP and LOM. The goal of the teleconferences is to ensure consensus on the analytical procedures and a schedule for sample processing and reporting.
- b. *Status Summaries:* Prior to delivering the progress report, the contractor shall provide monthly status summaries. The monthly status report shall match the time period covered by the progress report. The contractor shall provide Excel spreadsheets with the monthly status reports that include:
 - i. The number of samples delivered. If EPA conducts an external QC review and/or collects field blanks, they shall be considered “samples” for the purpose of invoicing, scheduling, and reporting. However, EPA considers quality assurance/quality control (QA/QC) requirements (e.g., blank tests, sample retests due to QC failures) to be part of the sample analyses and will not pay any additional costs associated with such activities.
 - ii. The number of samples for which the laboratory has submitted data.
 - iii. Data for the samples processed, or revised, since the previous summary. The contractor must report the data using EPA’s data template, but updated with the new and revised data. The data must include the results and any data flags for the blanks, standards, controls, spikes, and samples. In reviewing invoices, the EPA TOCOR will only consider the sample data to be complete, and eligible for payment, if the data include the entire batch of samples and their QC data (i.e., data flags and data for blanks, standards, and controls). In addition, the contractor shall provide a separate case narrative (e.g., emailed Word or pdf file) for the EPA TOCOR to review with the data.
- c. *Monthly Financial Reports:* The contractor shall provide a financial report each month that matches the costs in the corresponding invoice.
 - i. The contractor shall prepare and submit the financial reports in accordance with the contract clause, Contract Attachment 2, Reports of Work.
 - ii. For the sample analyses completed during the month and billed in the invoice, the financial report shall identify the sample using its site identification code and sample number.
 - iii. For the month in which the contractor delivers the final database for Task 4, the contractor shall include the costs for Task 4.

- d. *Monthly Progress Reports:* The contractor shall provide a progress report each month that includes project status; expenditures to date; number of samples in each processing stage compared to the plan; unexpected problems or concerns, including with quality assurance; lessons learned; QA/QC activities; and next steps. The contractor also shall certify, each month, that all assigned staff have received the appropriate training required for assigned duties. The contractor shall prepare and submit the monthly progress reports in accordance with the contract clause, Contract Attachment 2, Reports of Work.
- e. *Issues Requiring EPA Resolution:* The contractor shall immediately notify the EPA TOCOR of any unexpected problems or concerns with QA/QC outcomes. Recommended remedies or corrective actions, including modifications of SOPs, should be shall be part of the notification. The contractor also shall include problems and concerns in the monthly progress report.

Deliverables and Schedule under Task 1:

Subtask	Deliverable	Due
a.	Teleconferences, including copies of SOPs.	Date/time per technical direction from EPA TOCOR based upon contractor's recommended dates/times.
b.	Status updates with data in spreadsheet and case narrative	Monthly for any month in which samples were received and/or processed.
c. and d.	Progress and financial reports in electronic format	Monthly for any month in which samples were received and/or processed.
e.	Notification (by email or teleconference) of EPA to problems or concerns	Immediately when issue identified.

Task 2. Quality Assurance

Quality Assurance (QA) is an important component of EPA's work to assure that minimum quality standards are attained. The contractor shall address the QA requirements of this task order by adhering to the requirements and procedures identified in:

- The contractor's customized Quality Management Plan (QMP) incorporated into this contract;
- NCCA QA documents which document how quality assurance and quality control will be applied to the collection of environmental data for the survey. The documents relevant to support in this task order are:
 - 2015 NCCA Quality Assurance Project Plan (QAPP; US EPA 2015c)
 - 2015 NCCA Laboratory Operations Manual (LOM; US EPA 2015b)

As demonstration of the contractor's:

- a. Commitment to adhere to the QAPP, the contractor's Quality Assurance Official (QAO) and each laboratory's QAO shall sign the page "Review & Distribution Acknowledgment and Commitment to Implement" in the introductory section of the QAPP. The contractor shall distribute the version of the QAPP (US EPA 2015c) and LOM (US EPA 2015b) available at award of the task order, and any additional revisions approved by the EPA QAO, throughout the contractor's organization, including subcontractors and consultants. If EPA distributes an updated version of the QAPP or LOM and states that it contains a "significant change," relevant to immunoassays of microcystins, the contractor shall acknowledge, in writing (e.g., email), that it has received and distributed the revised document to the appropriate personnel.
- b. Implementation of QA/QC in performing the other tasks in this PWS, the contractor shall provide EPA with documentation of its QA activities as follows:
 - i. Standard Operating Procedures (SOPs) and any other quality assurance documentation developed or adopted by the contractor's laboratory for use in performing the required analyses.
 - ii. Reports of relevant QA activities in any deliverable. All QA documentation prepared under the task order shall be considered non-proprietary.
 - iii. Monthly reports of QA activities performed during implementation of this task order. These monthly QA reports shall identify QA activities performed to support implementation of this task order, problems encountered, deviations from the QAPP, and corrective actions taken. The contractor shall include the QA report with the monthly progress report.
- c. Ability to conform to NCCA measurement quality objectives, the contractor must, at a minimum, ensure that the data meets the measurement quality objectives in the QAPP.

Deliverables and Schedule under Task 2:

Subtask	Deliverable	Due
a.	Completed Signature page "Review & Distribution Acknowledgment and Commitment to Implement" of the <u>QAPP</u> .	No later than 5 working days after award of the task order.
	Email acknowledgement of receipt of <u>QAPP</u> or <u>LOM</u> with "significant change".	No later than 10 working days after receiving revised document from EPA.
b.	Laboratory SOPs	No later than 5 working days after effective date of task order or SOP modification.

Subtask	Deliverable	Due
	Notification to EPA of SOP modification.	
	Documentation of QA activities	With deliverables
	Monthly reports of QA activities during months when samples are delivered and/or processed	With monthly progress report

Task 3. Immunoassays of Microcystins

The contractor shall strictly follow all procedures in the Method for performing the immunoassays of microcystins in water samples collected by the NCCA connecting channel field crews. Crews shall deliver samples as specified in the Field Operations Manual (FOM; US EPA 2015a).

If the contractor identifies a situation requiring modification of analytical procedures or SOP, the EPA TOCOR must approve the modification before the contractor can implement the change. CO approval is required for any change that potentially affect the costs (decrease or increase) and/or period of performance.

In addition to the delivery of data addressed in Task 1, the contractor shall provide the deliverables resulting from the following activities:

- a. Log each sample and record the condition of the sample into the NARS Information Management (IM) system within 24 (clock) hours of the sample arriving at the laboratory. If the sample does not arrive when expected, the contractor shall immediately notify the EPA TOCOR or her designee. Alternatively, for shipments with a large number of samples, the contractor may email a spreadsheet with the sample login and sample condition information to the EPA TOCOR or her designee.
- b. The laboratory shall retain:
 - The sample materials, including vials, for a minimum of one (1) year after collection. During this time, the laboratory shall maintain the materials at the temperature specified in the LOM (US EPA 2015b).
 - Original records, including laboratory notebooks and instrument logs, for a minimum of ten (10) years from the date that EPA publishes the final report.
- c. If EPA or the contractor determines that the transfer of samples or records to another location is necessary, EPA will make separate arrangements (e.g., task order modification) with the contractor for any necessary photocopying, packaging, and shipping expenses. Otherwise, at the end of the retention period, the contractor shall follow its internal protocols for disposal.

- d. Unless the TOCOR grants an exception, the contractor shall not publish findings based upon work conducted under this task order until EPA provides public access to the data.

Deliverables and Schedule under Task 3:

Subtask	Deliverable	Due
a.	Sample logged into NARS IM system or transmittal of spreadsheet	Within 24 (clock) hours of sample receipt
a.	Email identifying missing sample	Immediately if sample does not arrive when expected
b. and c.	Access to samples or original laboratory records.	Upon EPA TOCOR's written request.

Task 4. Final Database

The contractor shall provide revised and final databases for the results of the immunoassays reported in Task 1 and Task 2. The contractor shall provide:

- a. Responses to EPA's questions about the sample and QC data, as conveyed by the EPA TOCOR's technical direction.
- b. Revised databases that incorporate changes based upon EPA's review of the data and identified by the EPA TOCOR's technical direction.
- c. Final database that incorporates revisions identified by the EPA TOCOR's technical direction.

Deliverables and Schedule under Task 4:

Subtask	Deliverable	Due
a.	Email with responses to data questions	1-5 working days per technical direction
b.	Revised databases	10 working days after receiving the EPA TOCOR's technical direction. The contractor shall assume that five revisions will be required as a result of EPA's review of the data.
c.	Final database	10 working days after receiving technical direction; but no later than 5 days prior to the end of the period of performance.

VI. TRAVEL

EPA does not anticipate that any travel will be necessary to perform the tasks in the Performance Work Statement.

VII. Literature Cited

U.S. EPA. 2015a National Coastal Condition Assessment 2015 Field Operations Manual. U.S. Environmental Protection Agency Office of Water, Washington, DC. EPA-841-R-14-007; <https://www.epa.gov/national-aquatic-resource-surveys/national-coastal-condition-assessment-2015-field-operations-manual>

U.S. EPA. 2015b National Coastal Condition Assessment 2015 Laboratory Operations Manual. U.S. Environmental Protection Agency Office of Water, Washington, DC. EPA-841-R-14-008; <https://www.epa.gov/national-aquatic-resource-surveys/national-coastal-condition-assessment-2015-lab-operations-manual>

U.S. EPA. 2015c National Coastal Condition Assessment 2015 Quality Assurance Project Plan (version 1.3 May, 2015). U.S. Environmental Protection Agency Office of Water, Washington, DC. EPA-841-R-14-005; <https://www.epa.gov/national-aquatic-resource-surveys/national-coastal-condition-assessment-2015-quality-assurance>

VIII. Quality Assurance Surveillance Plan (QASP)

The contract QASP is applicable to this Task Order.

**POINTS OF CONTACT
NARS CONTRACT
TASK ORDER (TO) 4**

TO 4 Title: National Coastal Condition Assessment: Great Lakes Connecting Channel Research: Microcystins Immunoassays

Table: Contact Information

Person's role in TO 4	Organization	Person's name	Phone	Email	Include person on emails (Y/N)
TO Leader	Great Lakes Environmental Center, Inc. (GLEC)	(b)(4)	(b)(4)	(b)(4)	Y
Program Manager	GLEC				Y
Lab contact	GLEC 739 Hasting St. Traverse City, MI 49686				N
Backup lab contact	GLEC				N

OTHER INFORMATION (if any):

1. The batch lab should freeze samples before releasing them to the GLEC analytical chemistry laboratory.
2. Samples should not be shipped on Friday, Saturday or Sunday.